

CLAIMS

1. A pressure-sensitive adhesive sheet for removal of a solvent-containing substance, the sheet comprising a substrate and a pressure sensitive adhesive layer formed at least on one side of the substrate, wherein the pressure sensitive adhesive layer adsorbs 20 g/m² or more of a solvent contained in the substance to be removed when the pressure-sensitive adhesive sheet is immersed in the solvent for 3 minutes.

2. A pressure-sensitive adhesive sheet for removal of a solvent-containing substance, the sheet comprising a substrate and a pressure sensitive adhesive layer formed at least on one side of the substrate, wherein the pressure-sensitive adhesive layer absorbs 5 g/m² or more of a solvent contained in the substance to be removed when the pressure-sensitive adhesive sheet is immersed in the solvent for 1 second, and wherein the pressure-sensitive adhesive sheet after absorbing 5 g/m² of the solvent has a tackiness of 1 cN/25-mm or more as determined by a method in conformity with Japanese Industrial Standards (JIS) Z 0237.

3. A pressure-sensitive adhesive sheet for removal of a solvent-containing substance, the sheet comprising a substrate and a pressure sensitive adhesive layer formed at least on one side of the substrate, wherein the

pressure-sensitive adhesive layer absorbs 5 g/m^2 or more of a solvent contained in the substance to be removed when the pressure-sensitive adhesive sheet is immersed in the solvent for 1 second, and wherein no stain is observed in a stainless steel plate (a SUS 430BA plate) by visual inspection when the pressure-sensitive adhesive sheet after absorbing 5 g/m^2 of the solvent is stuck to the stainless steel plate by a reciprocating motion of a 2-kg rubber roller and is peeled off from the stainless steel plate.

4. The pressure-sensitive adhesive sheet for removal of a solvent-containing substance according to claim 3, wherein a pressure-sensitive adhesive constituting the pressure-sensitive adhesive layer comprises such components alone that are insoluble in a solvent contained in the substance to be removed.

5. A pressure-sensitive adhesive sheet for removal of a solvent-containing substance, the sheet comprising a substrate and a pressure-sensitive adhesive layer formed at least on one side of the substrate, wherein a difference $\Delta\delta$ between the solubility parameter (SP) $\delta_1 [(\text{J/cm}^3)^{1/2}]$ of a pressure-sensitive adhesive constituting the pressure-sensitive adhesive layer and the solubility parameter (SP) $\delta_2 [(\text{J/cm}^3)^{1/2}]$ of a solvent contained in the solvent-containing substance to be removed falls within a range of $\pm 4 [(\text{J/cm}^3)^{1/2}]$.

6. A pressure-sensitive adhesive sheet for removal of a solvent-containing substance, the sheet comprising a substrate and a pressure-sensitive adhesive layer formed at least on one side of the substrate, wherein the pressure-sensitive adhesive contains fine particles.

7. The pressure-sensitive adhesive sheet for removal of a solvent-containing substance according to claim 6, wherein the fine particles have a mean particle size of from 0.01 to 10 μm .

8. The pressure-sensitive adhesive sheet for removal of a solvent-containing substance according to any one of claims 1 to 7, wherein the pressure-sensitive adhesive layer before use has a tackiness of from 1 to 400 cN/25-mm as determined by a method in conformity with JIS Z 0237.

9. The pressure-sensitive adhesive sheet for removal of a solvent-containing substance according to any one of claims 1 to 8, wherein the pressure-sensitive adhesive sheet is for use in cleaning of a screen printing plate.

10. A method for removing a solvent-containing substance deposited on an article to be cleaned, the method comprising the step of using a pressure-sensitive adhesive sheet, the pressure-sensitive adhesive sheet comprising a substrate and a pressure-sensitive adhesive layer formed at least on one side of the substrate, wherein the pressure sensitive adhesive layer adsorbs 20 g/m² or more of a solvent

contained in the solvent-containing substance to be removed when the pressure-sensitive adhesive sheet is immersed in the solvent for 3 minutes.

11. A method for removing a solvent-containing
5 substance deposited on an article to be cleaned, the method comprising the step of using a pressure-sensitive adhesive sheet, the pressure-sensitive adhesive sheet comprising a substrate and a pressure-sensitive adhesive layer formed at least on one side of the substrate, wherein the
10 pressure-sensitive adhesive layer absorbs 5 g/m^2 or more of a solvent contained in the solvent-containing substance to be removed when the pressure-sensitive adhesive sheet is immersed in the solvent for 1 second, and wherein the pressure-sensitive adhesive sheet after absorbing 5 g/m^2 of
15 the solvent has a tackiness of 1 cN/25-mm or more as determined by a method in conformity with JIS Z 0237.

12. A method for removing a solvent-containing
substance deposited on an article to be cleaned, the method comprising the step of using a pressure-sensitive adhesive
20 sheet, the pressure-sensitive adhesive sheet comprising a substrate and a pressure-sensitive adhesive layer formed at least on one side of the substrate, wherein the pressure-sensitive adhesive layer absorbs 5 g/m^2 or more of a solvent contained in the solvent-containing substance to be
25 removed when the pressure-sensitive adhesive sheet is

immersed in the solvent for 1 second, and wherein no stain is observed in a stainless steel plate (a SUS 430BA plate) by visual inspection when the pressure-sensitive adhesive sheet after absorbing 5 g/m² of the solvent is stuck to the stainless steel plate by a reciprocating motion of a 2-kg rubber roller and is peeled off from the stainless steel plate.

13. A method for removing a solvent-containing substance deposited on an article to be cleaned by the use of a pressure-sensitive adhesive sheet, the pressure-sensitive adhesive sheet comprising a substrate and a pressure-sensitive adhesive layer formed at least on one side of the substrate, the method comprising the steps of (a) determining the solubility parameter (SP) δ_1 [(J/cm³)^{1/2}] of a pressure-sensitive adhesive constituting the pressure-sensitive adhesive layer, (b) determining the solubility parameter (SP) δ_2 [(J/cm³)^{1/2}] of a solvent contained in the solvent-containing substance to be removed, and (c) selecting such a pressure-sensitive adhesive sheet that a difference $\Delta\delta$ between δ_1 and δ_2 falls within a range of ± 4 [(J/cm³)^{1/2}] and removing the solvent-containing substance with the use of the selected pressure-sensitive adhesive sheet.

14. The method for removing a solvent-containing substance according to claim 13, wherein, in Step (a), the pressure-sensitive adhesive sheet is immersed respectively in

plural solvents having different solubility parameters (SPs) to thereby determine the degree of swelling or gel fraction of the pressure-sensitive adhesive constituting the pressure-sensitive adhesive layer, and the solubility parameter (SP) of a solvent, in which the pressure-sensitive adhesive exhibits the maximum degree of swelling or the minimum gel fraction, is defined as the solubility parameter (SP) $\delta_1 [(J/cm^3)^{1/2}]$ of the pressure-sensitive adhesive constituting the pressure-sensitive adhesive layer of the pressure-sensitive adhesive sheet.

15. A method for removing a solvent-containing substance deposited on an article to be cleaned, the method comprising the step of using a pressure-sensitive adhesive sheet, the pressure-sensitive adhesive sheet comprising a substrate and a pressure-sensitive adhesive layer formed at least on one side of the substrate, wherein the pressure-sensitive adhesive layer contains fine particles.

16. A sheet for removal of a solvent-containing substance, the sheet comprising a substrate and a pressure-sensitive adhesive layer or a foam layer formed at least on one side of the substrate, wherein the sheet has been subjected to antistatic treatment.

17. The sheet for removal of a solvent-containing substance according to claim 16, wherein at least one of both sides of the sheet has a surface resistivity of $10^{13} \Omega$ or less.

18. The sheet for removal of a solvent-containing substance according to claim 16 or 17, wherein the sheet is for use in cleaning of a screen printing plate.

19. A method for removing a solvent-containing
5 substance deposited on an article to be cleaned, the method comprising the step of using a sheet, the sheet comprising a substrate and a pressure-sensitive adhesive layer or a foam layer formed at least on one side of the substrate, wherein the sheet has been subjected to antistatic treatment.